

U.S. GOVERNMENT PRINTING OFFICE

Columbus, Ohio

GENERAL TERMS, CONDITIONS, AND SPECIFICATIONS

For the Procurement of

CD-R and DVD+R Duplication/Replication

as requisitioned from the U.S. Government Printing Office (GPO) by

US Army Accessions Command – ATAL-IIA

Single Award

TERM OF CONTRACT: The term of this contract is for Date of Award through March 31, 2010 and 3 option year periods (April 1, 2010 through March 31, 2011; April 1, 2011 through March 31, 2012; and April 1, 2012 through March 31, 2013). Special attention is directed to the following provision and clauses in Section 1 of this contract: "Option to Extend the Term of the Contract", and "Economic Price Adjustment."

BID OPENING: Bids shall be publicly opened at 2:00 p.m., prevailing Columbus, Ohio time

March 27, 2009

BIDS MUST BE RECEIVED BY ABOVE DATE AND TIME. LATE BIDS WILL NOT BE CONSIDERED.

MAIL BID TO: U.S. GOVERNMENT PRINTING OFFICE, 1335 DUBLIN ROAD, SUITE 112-B, COLUMBUS, OHIO 43215-7034. ENVELOPE MUST BE MARKED WITH PROGRAM NUMBER AND BID DATE OPENING.

BIDDERS PLEASE NOTE: Revisions have been made throughout the specifications. Bidders are cautioned to familiarize themselves with all provisions of this contract before bidding.

Abstract is available on GPO Web Site at <http://winapps.access.gpo.gov/ppd/abstracts/columbus/default.asp>

BEFORE AWARD: ANY QUESTIONS CONCERNING THESE SPECIFICATIONS CALL
Linda Price (614)-488-4616, extension 22.

AFTER AWARD: REFER ALL QUESTIONS TO YOUR CONTRACT ADMINISTRATOR
Jiwon Han (614)-488-4616, extension 28.

NO COLLECT CALLS

SECTION 1. – GENERAL TERMS AND CONDITIONS

GPO CONTRACT TERMS: Any contract which results from this Invitation for Bid will be subject to the applicable provisions, clauses, and supplemental specifications of GPO Contract Terms (GPO Pub. 310.2, effective December 1, 1987 (Rev. 06/01)) and GPO Contract Terms, Quality Assurance Through Attributes Program for Printing and Binding (GPO Pub. 310.1, effective May 1979 (revised 08/02)).

GPO PUB. 310.2 IS AVAILABLE ON GPO WEB SITE AT

<http://www.gpo.gov/printforms/index.html>

GPO PUB. 310.1 IS AVAILABLE ON GPO WEB SITE AT

<http://www.gpo.gov/printforms/index.html>

REVISED GPO DISPUTES CLAUSE (06/08) IS AVAILABLE ON GPO WEB SITE AT

<http://www.gpo.gov/printforms/pdf/contractdisputes.pdf>

REGULATIONS GOVERNING PROCUREMENT

The U.S. Government Printing Office (GPO) is an office in the legislative branch of the United States Government. Accordingly, the Federal Acquisition Regulation is inapplicable to this, and all GPO procurements. However, the text of certain provisions of the Federal Acquisition Regulation as contained in the Code of Federal Regulations (CFR), are referenced in this solicitation. The offeror should note that only those provisions of the Federal Acquisition Regulation which are specifically incorporated by reference into this solicitation, are applicable.

FACSIMILE BIDS: The solicitation provision in GPO Contract Terms (Pub. 310.2) permitting facsimile bids means a bid that has been transmitted to and has been received by a commercial enterprise via facsimile and subsequently delivered to the Government. Facsimile bids transmitted to GPO offices will not be considered.

CD-R OR DVD+R DUPLICATION/REPLICATION: Several firms claim patent rights, which may be applicable to CD-R or DVD+R replication. For example, see <http://www.licensing.philips.com>. U.S. Philips Corporation and Sony Corporation claim to hold patents for certain technologies essential to the manufacture and replication of CD-Rs and DVD+Rs and assert it is impossible to manufacture or replicate a CD-R or DVD+R without infringing these patents. The patent claims cover, among other things, both the physical structure of and manner in which data is encoded on a CD-R or DVD+R. Other firms, including Discovision Associates, Irvine, CA, also claim similar patent rights. Each bidder's attention is invited to the patent indemnification provisions of GPO Contract Terms (Pub. 310.2 (Rev. 6-01)) since the successful bidder will be responsible for compliance with all applicable patents, including any for CD-Rs or DVD+Rs.

By submission of a bid, bidders certify that they hold a license under all patents applicable to their duplication/replication of CD-Rs or DVD+Rs.

SUBCONTRACTING: The primary production functions are considered to be the mastering and the duplicating/replication of the CD-Rs and DVD+Rs. These functions must be performed by the prime contractor with the following exception: The prime contractor may be a service bureau that regularly deals with CD-Rs and that on a regular continuing basis provides add-on functions directly dealing with mastering, data base management, programming for CD-Rs, file management, retrieval software for CD-Rs and DVD+Rs, and similar type functions.

The prime contractor cannot be a broker. Bidders whose primary function in relation to CD-Rs and DVD+Rs is as a broker will be declared not responsible. Service bureaus who subcontract the mastering and/or replication will be responsible for the performance of their subcontractors.

The prime contractor is responsible for the storage of all the glass masters whether stored by them or the subcontractor.

QUALITY ASSURANCE LEVELS AND STANDARDS: The following levels and standards shall apply to these specifications:

Product Quality Levels:

- (a) Printing (item related) Attributes -- Level II.
- (b) Finishing (item related) Attributes -- Level II.

Inspection Levels (from ANSI/ASQC Z1.4):

- (a) Non-destructive Tests - General Inspection Level I.
- (b) Destructive Tests - Special Inspection Level S-2.

Specified Standards: The specified standards for the attributes requiring them shall be:

| <u>Attribute</u> | <u>Specified Standard</u> |
|--|-----------------------------|
| P-7. Type Quality and Uniformity | Approved Proofs/Check Discs |
| P-8. Halftone Match (Single and Double Impression) | Approved Proofs/Check Discs |
| P-9. Solid and Screen Tint Color Match | Approved Proofs/Check Discs |
| P-10. Process Color Match | Approved Proofs/Check Discs |

PAYMENT: Submit all vouchers to: Comptroller, STOP FMCE, Office of Financial Management, U.S. Government Printing Office, Washington, D.C. 20401. After award, at Government's option, the contractor must submit a copy of the print order (upon receipt of order), contractor's invoice and all mailing and/or delivery receipts (at time of invoicing) via e-mail to infocolumbus@gpo.gov or fax to 614-488-4577. One complete sample (at time of invoicing) may be required to be mailed to: US GPO; Columbus RPPO; ATTN: Program/Print Order Numbers; 1335 Dublin Road, Suite 112-B; Columbus, OH 43215.

OPTION TO EXTEND THE CONTRACT TERM: The Government may extend the term of this contract by written notice to the contractor not later than 30 days before the contract expires. If the Government exercises an option, the extended contract shall be considered to include this clause. The duration of this contract, including the exercise of any options under this clause, shall not exceed March 31, 2013.

Notwithstanding the above paragraph, at the request of the Government, the term of any contract resulting from this solicitation may be further extended for such period of time as may be mutually agreeable to the GPO and the contractor.

ECONOMIC PRICE ADJUSTMENT: The prices set forth in this contract shall be adjusted in accordance with the provisions of this clause, provided that, in no event will prices be revised to exceed the maximum permissible under any law existing as of the date of the contract or as may be hereafter promulgated.

PRICE ADJUSTMENT PERIOD: For the purpose of this clause, the program years shall comply with the Contract Term clause. There shall be no price adjustment for orders placed during the first program year of this contract.

PRICE ADJUSTMENT: The prices shall be adjusted on the basis of the "Consumer Price Index For All Urban Consumers - Commodities Less Food, Seasonally Adjusted," published monthly in the CPI Detailed Report by the Department of Labor, Bureau of Labor Statistics, in the following manner:

- (1) The contract price of orders placed during the adjusted period (excluding reimbursable postage or transportation costs) shall be adjusted by the percentage increase or decrease in the average, seasonally adjusted Consumer Price Index For All Urban Consumers-Commodities Less Food (seasonally adjusted) as follows: An index shall be calculated by averaging the 12 seasonally adjusted months ending 3 months prior to the expiration of the first period of this contract. This average is then compared with the average index for the 12-month period ending 3 months prior to the beginning of the contract, called the base index. The percentage increase or decrease by comparing these two indexes shall be applied to the contractor's invoices for orders placed during the price adjustment period.
- (2) The Government will notify the contractor in writing of the percentage increase or decrease to be applied to any invoices to be submitted for orders subject to price adjustment in accordance with this clause. Such percentage will be determined from the published index as set forth above. The contractor shall apply the percentage increase or decrease against the total price of the invoice less reimbursable postage or transportation costs. Any applicable discounts will be calculated on the basis of the invoice price as adjusted.

If the Government exercises an option, the extended contract shall be considered to include this economic price adjustment clause.

PREAWARD SURVEY: In order to determine the responsibility of the prime contractor or any subcontractor, the Government reserves the right to conduct an on-site preaward survey at the contractor's/subcontractor's facility or to require other evidence of technical, production, managerial, financial, and similar abilities to perform, prior to the award of a contract.

ASSIGNMENT OF JACKETS, PURCHASE AND PRINT ORDERS: A GPO jacket number will be assigned and a purchase order issued to the contractor to cover work performed. The purchase order will be supplemented by an individual "Print Order" for each job placed with the contractor. The print order, when issued, will indicate the quantity to be produced and any other information pertinent to the particular order.

PREAWARD SURVEY: In order to determine the responsibility of the prime contractor or any subcontractor, the Government reserves the right to conduct an on-site preaward survey at the contractor's/subcontractor's facility or to require other evidence of technical, production, managerial, financial, and similar abilities to perform, prior to the award of a contract.

ORDERING: Items to be furnished under this contract shall be ordered by the issuance of print orders by the Government. Orders may be issued under this contract from Date of Award through March 31, 2010 (plus options). All print orders issued hereunder are subject to the terms and conditions of this contract. This contract shall control in the event of conflict with any print order. When mailed, a print order shall be "issued" for purposes of this contract at the time the Government deposits the order in the mail.

REQUIREMENTS: This is a requirements contract for the items and for the period specified herein. Shipment/delivery of items or performance of work shall be made only as authorized by orders issued in accordance with the clause entitled "Ordering". The quantities of items specified herein are estimates only, and are not purchased hereby. Except as may be otherwise provided in this contract, if the Government's requirements for the items set forth herein do not result in orders in the amounts or quantities described as "estimated", it shall not constitute the basis for an equitable price adjustment under this contract.

Except as otherwise provided in this contract, the Government shall order from the contractor all the items set forth which are required to be purchased by the Government activity identified on page 1. The Government shall not be required to purchase from the contractor, requirements in excess of the limit on total orders under this contract, if any.

Orders issued during the effective period of this contract and not completed within that time shall be completed by the contractor within the time specified in the order, and the rights and obligations of the contractor and the Government respecting those orders shall be governed by the terms of this contract to the same extent as if completed during the effective period of this contract.

If shipment/delivery of any quantity of an item covered by the contract is required by reason of urgency prior to the earliest date that shipment/ delivery may be specified under this contract, and if the contractor will not accept an order providing for the accelerated shipment/delivery, the Government may procure this requirement from another source. The Government may issue orders which provide for shipment/delivery to or performance at multiple destinations.

Subject to any limitations elsewhere in this contract, the contractor shall furnish to the Government all items set forth herein which are called for by print orders issued in accordance with the "Ordering" clause of this contract.

DELIVERY/SHIPPING STATUS INFORMATION: The contractor is to use the GPO furnished form to report the delivery/shipment status on each order. The form is to be reproduced as needed by the contractor. This information **MUST** be furnished to GPO - Columbus, RPPO on each order. The information as contained on this form is to be faxed or called to the Columbus RPPO.

Fax Number (614) 488-9618
Telephone Number (614) 488-4616, extension 24
NO COLLECT CALLS

SECTION 2. – SPECIFICATIONS

SCOPE: These specifications cover the production of CD-Rs and DVD+Rs requiring such operations as electronic prepress, check discs, full duplication/replication of audio, video, and data, printing in four-color process and/or in a single ink color, inserting, packaging, and distribution.

TITLE: CD-R and DVD+R Duplication/Replication.

FREQUENCY OF ORDERS/QUANTITY: Approximately 21 orders per year. Up to 10 items may be placed on a single print order. Approximately 100 to 30,000 discs per item. Only items for replication will require glass masters/stampers. The following represents the possible average number of items and the possible average quantities.

| | | |
|----------------|--------------|-----------------|
| 8 cm CD-R: | <u>Items</u> | <u>Quantity</u> |
| | 6 | 1,000 |
| | 1 | 2,600 |
| | 1 | 15,000 |
| 12 cm CD-R: | <u>Items</u> | <u>Quantity</u> |
| | 1 | 1,000 |
| | 1 | 2,600 |
| | 2 | 15,000 |
| DVD-5 (DVD+R): | <u>Items</u> | <u>Quantity</u> |
| | 1 | 1,000 |
| | 2 | 2,600 |
| | 1 | 15,000 |
| DVD-9 (DVD+R): | <u>Items</u> | <u>Quantity</u> |
| | 1 | 1,000 |
| | 3 | 2,600 |
| | 1 | 15,000 |

NOTE: Some orders will require more than one CD-R/DVD+R per item. Anticipate 1 item, most likely DVD-5, average 2,600 copies.

TRIM SIZES AND STORAGE CAPACITY:

CD-Rs: 8 cm (standard shape and “hockey-rink” shape): 30 MB to 100 MB storage capacity
12 cm: 700 MB storage capacity

DVD+Rs: 12 cm DVD-5: 4.7GB storage capacity (Single Side, Single Layer)
12 cm DVD-9: 8.4 GB storage capacity (Single Side, Dual Layer)

Letters: When ordered, letters are 8-1/2 x 11” and print face only or head-to-head in single ink color, usually black.

GOVERNMENT TO FURNISH:

CD-Rs and DVD-5 (DVD+R): Master CD or DVD

DVD-9 (DVD+R): Removable hard drive

CD-R and DVD+R Labeling: File created on Windows XP in Adobe Photoshop 7.0 (version may be upgraded during the term of the contract. Native application files provided in final layout form. Fonts will not be included. Color separations have not been made. CMYK color i.d. Bleeds created.

Letters: Camera Copy.

Mailing labels (hard copy) and/or distribution list (hard copy or electronic file).

ELECTRONIC PREPRESS: Prior to image processing, the contractor shall perform a basic check (preflight) of the furnished media and publishing files to assure correct output of the required reproduction image. Any errors, media damage, or data corruption that might interfere with proper file image processing must be reported to Columbus GPO Contracting Officer prior to further performance.

The contractor shall create or alter any necessary trapping, set proper screen angles and screen frequency, and define file output selection for the imaging device being utilized. Furnished files must be imaged as necessary to meet the assigned quality level.

Upon completion of the order, the contractor must furnish final production native application files (digital deliverables) with the furnished material. The digital deliverables must be an exact representation of the final printed product and shall be returned on the same type of storage media as was originally furnished. The Government will not accept, as digital deliverables, PostScript files, Adobe Acrobat Portable Document Format (PDF) files, or any proprietary files formats other than those supplied, unless specified by the Government.

Delivery/shipping status report form.

Form 905 (R. 3/90) "Labeling and Marking specifications".

Print Orders (GPO Form 2511).

Blue Labels and Selection Certificates.

Identification markings such as register marks, ring folios, rubber stamped jacket numbers, commercial identification marks of any kind, etc., except GPO imprint, form number, and revision date, carried on copy or film, must not print on finished product.

CONTRACTOR TO FURNISH: All materials and operations, other than those listed under "Government to Furnish," necessary to produce the product(s) in accordance with these specifications.

REPRODUCIBLES: The contractor must make all reproducibles required. The contractor is responsible for determining what type reproducibles will be used but must maintain the quality level specified in the contract. No separate charges will be allowed for the various types of reproducibles that may be used.

Further, the contractor is responsible for outputting all images contained on furnished material, regardless of the production process, at the highest effective resolution possible. The contractor is responsible for determining the appropriate output resolution to achieve optimal results for such design elements as blends, gradients, halftones, type and other images. This determination should be made using factors such as stock, imaging device (or press) being used, and other factors unique to the contractors production environment.

PROOFS: All orders will require contractor to submit proofs of the disc and letter (when ordered) in a low-resolution .pdf file to the e-mail address provided on the individual print order.

If any contractor's errors are serious enough in the opinion of the GPO to require revised proofs, the revised proofs are to be provided at no expense to the Government. No extra time can be allowed for this reproofing; such operations must be accomplished within the original production schedule allotted in the specifications.

Author's alterations (refer to page 10 (item 16) of GPO Contract Terms) and revised proofs may be required. Author's alterations and revised proofs will only be paid for when errors are caused by the Government and the Government deems it necessary to require revised proofs or make author's alterations.

The contractor must not print prior to receipt of an "Okay to Print".

STOCK/PAPER: The specifications of all paper furnished must be in accordance with those listed herein or listed for the corresponding JCP Code numbers in the "Government Paper Specification Standards No. 12" dated February 2008.

LETTERS: White Writing Paper, basis size 17 x 22", 20 lbs. per 500 sheets, equal to JCP Code D10

PRINTING: CD-Rs/DVD+Rs: Title and artwork print directly on discs (no labels) in a single ink color or in four-color process. Anticipate most orders will require four-color process. Expect heavy coverage and reverses, bleeds all sides and to hub. All printing on the disc shall comply with the requirements set forth in the International Standards IEC 908 and Amendment ISO 9660, and ISO 10149. Inks used for the disc shall not damage the lacquer layer. Orders printing in four-color process require a white base coating prior to printing the discs. Single ink color jobs do not require white base coating but do require opaque ink.

LETTERS: Print face only or head-to-head in single ink color, usually black.

MARGINS: Margins will be as indicated on the print order or furnished copy. CD-Rs/DVD+Rs may contain bleeds on all sides and to the hub. No bleeds on letter.

CD-R REQUIREMENTS: DATA FORMAT VERIFICATION: Upon receipt of the input media, the contractor shall review the files for data integrity, usability, and completeness using Eclipse mastering software. The contractor shall verify compliance of each image with the requirements of ISO 9660. The contractor shall immediately notify the contract administrator of any problems with the furnished data files, including files which are damaged, unreadable, oversized, or not in compliance with ISO 9660. Any delay by the contractor in notifying the contract administrator of defective material will not release the contractor from meeting the delivery and distribution schedule.

DATA CAPACITY: 8 cm discs must be able to contain 30 MB to 100 MB of user data. 12 cm discs must be able to contain up to 700 MB of audio, video, and data.

MASTER/STAMPER MARKS: The contractor shall image the program and print order number on the inner buffer zone (IBZ) unless the contractor is permitted to image other identification marks necessary for production in the IBZ. Contractor to create glass masters/stampers for orders requiring replication.

DISC SPECIFICATIONS: Discs produced under this contract shall be 8 cm and 12 cm CD-Rs as governed by the International Standards IEC 908 and Amendment ISO 9660, and ISO 10149. All sectors containing user data shall have their Sector Mode Byte set to (01)H and the sector content and layout shall be structured accordingly. Furthermore, discs must comply with the following requirements.

Modulation Amplitude: The relationship between I3 and Itop shall be: $0.35 \leq I3/I_{top} \leq 0.7$. The relationship between I11 and Itop shall be: $I11/I_{top} \geq 0.65$.

Signal Asymmetry: The symmetry of the HF signals relative to the decision level Id shall be:

1. greater than or equal to -5% and
2. less than or equal to +15%.

Errors: Block Error Rate (BLER) may not exceed 80 when averaged over any one second interval; BLER may not exceed 25 when averaged over the entire User Data Area. The total number of E22 errors may not exceed 2 on the disc.

Local Defects: The maximum allowable diameter of black spots, with or without increased birefringence, is 100 micrometers. All other specifications concerning local defects remain unchanged from those of the referenced International Standards.

Metalizing: The reflective layer shall be completely sealed with lacquer on the inner and outer edges of the disc.

Storage Tests: Annex F of International Standard ISO 10149 shall be treated as normative to the standard. Discs subjected to testing in accordance with Annex F shall remain in compliance with these specifications. Jitter Effect Length Deviation: In accordance with CD System specifications for jitter and effect length deviation, the following requirements shall apply:

For each run length of land and pit (3T and 11T), jitter shall be less than 35ns.

Effect Length Deviation shall not exceed the following:

| Pit/Land Length | Maximum Deviation (+/-) | Nominal Length Pit | Nominal Length Land |
|--------------------|----------------------------|-----------------------|------------------------|
| 3T | 40.0ns | 660 ns | 675 ns |
| 4T | 42.5ns | 910 ns | 925 ns |
| 5T | 45.0ns | 1165 ns | 1165 ns |
| 6T | 47.5ns | 1400 ns | 1400 ns |
| 7T | 50.0ns | 1635 ns | 1635 ns |
| 8T | 52.5ns | 1875 ns | 1875 ns |
| 9T | 55.0ns | 2110 ns | 2110 ns |
| 10T | 57.5ns | 2340 ns | 2335 ns |
| 11T | 60.0ns | 2570 ns | 2560 ns |

All other Compact Disc System mandated requirements for jitter and effect length deviation shall apply.

QUALITY CONTROL: Each delivered replicate must meet or exceed the requirements of these specifications. In addition to the contractor's existing quality control procedures, the following steps must be performed:

DATA INTEGRITY: For each stamper used, the contractor is required to perform the following:

1. Verify the integrity of all user data against the original government-furnished media;
2. Verify the integrity of EDC/ECC (error detection and error correction coding) for each sector of the User Data Area; and
3. Verify the integrity and consistency of the Table of Contents and the subcode data.

These checks may be performed on a CD-R replicate.

Replicates not meeting these specifications must be reproduced and redelivered at the contractor's expense and the contractor shall be considered late.

DISC TESTING: The Government may test CD-R replicates for compliance to the specifications of this contract. When discs are examined, they will be analyzed on a Koch CDCS-4/L tester. The following attributes will be checked:

1. Exact diametric locations of the following parts of the spiral data track.
 - a. Starting diameter of the lead in zone.
 - b. Starting diameter of the user data zone.
 - c. Starting diameter of the lead out zone.
2. Eccentricity
3. Average track pitch
4. Average scanning velocity
5. Push/pull
6. Crosstalk
7. High frequency and tracking signal properties
 - a. Itop or reflectivity.
 - b. Symmetry of I11 relative to Id.
 - c. I3 normalized by reflectivity.
 - d. I11 normalized by reflectivity.
 - e. Radial noise.
8. Digital errors
 - a. One second moving averages for block rate.
 - b. One second counts of E22 errors.
 - c. Burst error length.
 - d. Errors in the table of contents.
 - e. Errors in the subcode data.
9. Total playing time.
10. Birefringence.
11. Jitter and effect length deviation.

DVD+R REQUIREMENTS: DATA VERIFICATION: Upon receipt of the input media, the contractor shall review the files for data integrity, usability, and completeness using Eclipse mastering software. The contractor shall verify compliance of each disc image with the requirements of the DVD standard specification version 1.0. The contractor shall immediately notify the government of any problems with the furnished data files, including files which are damaged, unreadable, oversized or not in compliance with the DVD standard specification version 1.0.

DATA CAPACITY: The contractor shall be capable of producing DVD+Rs containing audio, video, and data as follows:

DVD-5 (DVD+R) – containing 4.7 GB of data (single side, single layer).

DVD-9 (DVD+R) – containing 8.4 GB of data (single side, dual layer).

MASTER/STAMPER MARKS: Contractor to create glass masters/stampers for orders requiring replication. The contractor shall image the jacket and print order number on the inner buffer zone unless the contractor is permitted to image other identification marks necessary for production in the inner buffer zone.

DVD+R FILE SYSTEM: All DVD+R discs produced under this contract shall comply with the OSTA Universal Disc Format Specification: 1996 (Appendix 6.9) "OSTA UDF Compliant Domain" of ISO/IEC 13346:1995 Volume and file structure of write-once and rewritable media using non-sequential recording for information interchange. Also known as the UDF Bridge (UDF/ISO 9660) file structure.

DVD+R MANUFACTURING SPECIFICATIONS: All DVD+R discs produced under this contract shall comply with the applicable sections of the DVD standard specification version 1.0. All DVD+R discs produced under this contract shall comply with the specifications cited in the following tables.

Digital Errors (Reed Solomon Product Code):

| <u>Parameters</u> | <u>Acceptable Value(s)</u> |
|--------------------------------|----------------------------|
| PI 8 ECC Sum | <280 |
| PI Fails | Not specified |
| PO Fails | = 0 (zero) |
| Percent of PI rows with Errors | Not specified |

Comments: The PI 8 ECC Sum error is the total error across 8 ECC blocks. PI 8 Sum under 40 is preferred.

HF/Tracking Real-time Measurements (made before signal "equalization"):

| <u>Parameters</u> | <u>Acceptable Value(s)</u> |
|----------------------|--|
| I3/I4 | Single layer: >0.15 Dual layer: >0.20 |
| I14/I14H | >0.6 |
| Tangential Push Pull | <0.9 |
| Asymmetry | In the range minus 0.05 to 0.15 |

HF/Tracking Station Measurements:

| <u>Parameters</u> | <u>Acceptable Value(s)</u> |
|------------------------|--|
| DPD Track Crossing | >0.10 |
| DPD Tracking Amplitude | >0.5 |
| DPD Tracking Asymmetry | <0.2 |
| Reflectivity | Single layer: in the range 45% to 85% Dual layer: in the range 18% to 30% |

NOTE: HF signals must be strong enough to avoid decoding failures. The tracking signal must be strong enough to support the variable bit functions.

| <u>Parameters</u> | <u>Acceptable Value(s)</u> |
|------------------------|--|
| Track Pitch | 0.74 +/-0.01 um/track |
| Pit Length | Single layer: in the range 0.394 to 1.873 Double layer: in the range 0.434 to 2.058 |
| Local Defects | Air bubbles: 100 um maximum Black spots: 200 um maximum |
| Scanning Velocity | Single layer: 3.49 +/-0.03 m/sec Dual layer: 3.84 +/-0.03m/sec |
| Jitter (data to Clock) | <8.0%, independent of tilt effects |

| | |
|--------------------------|--|
| Angular Deviation (tilt) | Radial tilt: < +/-0.80 degrees Tangential tilt: < +/-0.30 degrees |
| Birefringence | < 100 nm |

NOTE: The combination of the effects of jitter and tilt will be considered in the evaluation of a disc.

Lead-in Area Contents: The contractor shall set the values of the lead-in area as follows:

| <u>Parameters</u> | <u>Value(s)</u> |
|--------------------------------|---|
| Book Type | DVD+R |
| Book Version | (determined by contractor) |
| Disc Size | 120mm |
| Number of Layers | 1 or 2, as specified on the print order |
| Dual Layer Track Path | Parallel Track Path (PTP) |
| Layer Type | Read-only |
| Linear Density | Single layer: 0.2667 um/data bit Dual layer: 0.293 um/data bit |
| Track Density | 0.74 um/track |
| Starting Sector Number | 030000h |
| Ending Sector Number (Main) | (determined by contractor) |
| Ending Sector Number (layer 0) | (determined by contractor) |
| Burst Cutting Area (BCA) Flag | Exists (on) (BCA encodes disc volume ID) |
| Copy Protection System | none (copy protection off) |
| Region Management Flags | None (unrestricted access in all regions) |
| Encryption Data | None (no encryption) |
| Manufacturing Data | (As supplied by the contractor) |
| Content Provider Information | (Insert contents of provided file CPI.TXT) |

DVD+R QUALITY CONTROL: Each delivered replicate must meet or exceed the requirements of these specifications. In addition to the contractor's existing quality control procedures, the following steps must be performed.

DATA INTEGRITY: For each stamper used, the contractor shall:

1. Verify the integrity of all data against the original Government furnished media.
2. Verify the integrity of error detection and error correction coding for each sector of the user data area.
3. Verify the UDF/ISO 9660 directory structure.

Verification may be performed on a replicate or pre-production check disc. Replicates not meeting these specifications must be reproduced and re-delivered at the contractor's expense and the contractor shall be considered late.

DVD+R PRODUCT TESTING: The contractor is required to test DVD+R replicates for compliance to the specifications of this contract.

The following test results shall be reported:

1. Average track pitch.
2. Average scanning velocity.
3. Tangential push/pull.
4. Track crossing signal magnitude.

5. High frequency and tracking signal properties. The must be read continuously along the spiral track. Minimum, maximum and average values must be reported. Minima and maxima must be identified by A-time.
 - a. Itop or reflectivity.
 - b. Signal asymmetry.
 - c. I3 normalized to I14.
 - d. I14 normalized to I14H.
6. One-second moving values for PI 8 ECC Sum and PI Fails, measured continuously along the spiral track; minimum, maximum and average values must be reported.
7. Total playing time and total sectors tested.
8. Maximum disc birefringence.
9. Data to clock jitter.

CHECK DISCS: Up to 10 check discs will be required on some orders for CD-Rs or DVD+Rs for Government inspection prior to replication of the quantity ordered. Check discs to be printed with label.

If the check disc is disapproved due to faulty production by the contractor, the contractor must then provide a corrected check disc for approval, and no extra time will be allowed in the production schedule. No additional charges will be allowed for this corrected disc.

If the check disc is faulty because of a defective CD-R/DVD+R furnished by the Government, instructions will be furnished to the contractor for return of the defective CD-R/DVD+R and a new CD-R/DVD+R will be furnished to the contractor.

The contractor will be allowed to charge for the check disc produced from the CD-R. The schedule will start over upon the contractor's receipt of the corrected CD-R.

All check disc(s) must be placed in suitable containers. Although the check disc(s) will not be required to be printed, they must have the following information written on the disc(s) for the purpose of easy identification: product name, volume, issue, and disc sequence (i.e. 1, 2, 3,). The shipping container label must be identified by GPO jacket number, program number, print order, and title.

Contractor is cautioned not to proceed with replications until approval of the check discs is received.

Check Discs to be sent to multiple locations as indicated on the individual print order.

INSERTING AND PACKAGING: Insert each CD-R or DVD+R into industry standard packaging: clear clamshell (one or two disc capacity), paper sleeve (one disc capacity, with window showing contents), or vinyl sleeve (one disc capacity, "hockey-rink" shape). When letters are required, fold letter as indicted on individual print order and insert in clamshell, paper sleeve, or vinyl sleeve.

PACKING: Create address labels from furnished distribution lists (if provided) and affix a label to each unit requiring mailing.

NOTE: Contractor is responsible for insuring that labels do not smear and are securely attached to the package.

Multiple copies up to 12 pounds, must be inserted into cushioned shipping bags or wrapped in shipping bundles (maximum gross weight 14 pounds).

Multiple copies over 12 pounds, up to 24 pounds, must be wrapped in shipping bundles or packed in small shipping containers (maximum gross weight 27 pounds).

LABELING AND MARKING: Refer to Contract Terms and furnished Form 905.

QUALITY ASSURANCE TEST DISCS: When indicated on the print order, the contractor shall submit three CD-R or DVD+R replicates for each stamper used to produce the order. One disc shall be selected from the first third of each stamper production run, one from the middle third of the run, and one from the last third of the run. These discs will be tested for compliance with specifications.

These quality assurance test discs are in addition to the total quantity ordered. They are to be provided at no additional cost to the Government. Business reply mail labels (GPO form 915A) will be furnished for mailing test discs. These discs are to be mailed at the same time as the first scheduled shipment. A copy of the print order must be included.

DEPARTMENTAL RANDOM COPIES (BLUE LABEL): All distribution CD-R sets must be divided into equal sublots according to the chart below. A CD-R set consists of one or more discs contained in either a jewel case as specified on the print order. Select one set at random from each subplot. Do not choose sets from the same general area of each subplot.

| <u>Sets ordered</u> | <u>Number of Sublots</u> |
|---------------------|--------------------------|
| Under 9 | 0 |
| 9 to 25 | 2 |
| 26 to 150 | 5 |
| 151 to 280 | 8 |
| 281 to 500 | 13 |
| 501 to 10,000 | 20 |
| 10,001 to 35,000 | 32 |

These randomly selected sets must be packed separately and identified by a special furnished blue label, which is to be affixed to each container. These sets must be recorded separately on all shipping documents and sent to the address listed on the individual print order. The random inspection sets constitute a part of the total quantity ordered, and no additional charge will be allowed.

In addition, a copy of the print order along with the signed selection certificate, which will be furnished, must be included with the sets.

Blue Label Packages must list title and date and state "blue Label" on the outside of the parcel.

A copy of the Government-furnished certificate must accompany the voucher sent to GPO for payment. Failure to furnish the certificate may result in delay in processing voucher.

DISTRIBUTION: All destinations deliver f.o.b. contractor's city via traceable means using common courier or as otherwise directed on the individual print order. Reimbursement of these orders will be made to the contractor upon receipt of properly completed freight bill submitted with the contractor's invoice.

Tracking information and a copy of the properly completed freight bill is to be sent to the following e-mail addresses: devinee@usaac.army.mil; nancy.simons@dla.mil; and jhan@gpo.gov.

Inside delivery is defined as delivery to a Government controlled space as directed. "Inside delivery required" will be indicated on the print order when needed.

The ship/delivery date indicated on the print order is the date products must be received at the destination specified on the individual print order regardless of total weight or method of distribution.

NOTE: The majority of orders will require delivery to Ft. Knox, Kentucky.

SCHEDULE: Adherence to this schedule must be maintained.

Contractor must not start production of any job prior to receipt of the individual print order (GPO Form 2511) to be picked up with the furnished material. The delivery date indicated on the individual print order is a delivery date for f.o.b destination addresses and a ship date for f.o.b. contractor city addresses.

Furnished material and print order must be picked up from and delivered to Fort Knox, KY.

If agent picks up material, the contractor must provide an adequate supply of completed manifests (airbills) to the agency placing the orders, listing his firm as both the shipper and the consignee.

The following is the anticipated schedule and begins upon notification of the availability of print order and furnished material.

The numbers under the column headed "WD After" represent the number of workdays allowed to complete that certain part of the schedule after completion of the preceding part.

| | <u>WD AFTER</u> |
|--|-----------------|
| Contractor deliver check discs | 2 |
| Contractor pickup edited proofs and/or "OK to print" | 1 to 3 |
| Complete production and delivery/mailing | 5 to 10 |

RECEIPT FOR DELIVERY: Contractor must furnish their own receipts for delivery. These receipts must include the GPO jacket, program, and print order numbers; total quantity delivered, number of cartons, and quantity per carton; date delivery made; and signature of the Government agent accepting delivery. The original copy of this receipt must accompany the contractor's voucher for payment.

Unscheduled material such as Government Bills of Lading, shipping instructions, delivery lists, labels, etc., will be furnished with each order or shortly thereafter. In the event such information is not received in due time, the contractor will not be relieved of any responsibility in meeting the shipping schedule because of failure to request such information.

RETURN OF GOVERNMENT FURNISHED PROPERTY: Within 3 workdays after the completion of the distribution, the contractor must return all furnished material not consumed in mailing to the Fort Knox, KY address indicated on the individual print order.

These materials must be packaged, properly labeled and delivered separate from the entire job. The contractor must be able to produce a separate signed receipt for these materials at any time during the contract.

All expenses incidental to pick up and return of materials, and providing e-mail proofs, samples, check discs, receipts, and e-mail notifications must be borne by the contractor.

SECTION 3. – DETERMINATION OF AWARD

The Government will determine the lowest bid by applying the prices offered in the “SCHEDULE OF PRICES” to the following units of production which are the estimated requirements to produce one (1) year’s production under this contract. These units do not constitute, nor are they to be construed as, a guarantee of the volume of work which may be ordered for a like period of time.

The following item designations correspond to those listed in the “SCHEDULE OF PRICES”.

| | | |
|------|-----|---------|
| I. | 1. | 2 |
| | 2. | 3 |
| | 3. | 4 |
| | 4. | 4 |
| II. | 1. | (a) 60 |
| | | (b) 60 |
| | | (c) 10 |
| | | (d) 10 |
| | | (e) 10 |
| | 2. | (a) 26 |
| | | (b) 26 |
| | | (c) 26 |
| | | (d) 78 |
| | | (e) 78 |
| | 3. | (a) 150 |
| | | (b) 150 |
| | | (c) 300 |
| | | (d) 150 |
| | | (e) 150 |
| III. | (a) | (1) 7 |
| | | (2) 398 |
| | (b) | (1) 15 |
| | | (2) 650 |
| | (c) | (1) 2 |
| | | (2) 20 |
| | (d) | (1) 4 |
| | | (2) 228 |
| IV. | 1. | (a) 4 |
| | | (b) 4 |
| | | (c) 12 |
| | | (d) 16 |
| | 2. | (a) 724 |
| | | (b) 26 |
| | | (c) 36 |
| | | (d) 236 |

SECTION 4. – SCHEDULE OF PRICES

Bids offered are f.o.b. contractor's city to various locations.

Prices must be submitted for the entire term of the contract and bids qualified for a lesser period will not be considered.

Prices must include the cost of all required materials and operations for each item listed in accordance with these specifications.

Bidder must make an entry in each of the spaces provided. Bids submitted with any obliteration, revision, or alteration of the order and manner of submitting bids may be declared nonresponsive.

An entry of NC (No Charge) shall be entered if bidder intends to furnish individual items at no charge to the Government.

Bids submitted with NB (No Bid) or blank spaces for an item may be declared nonresponsive.

The Contracting Officer reserves the right to reject any offer that contains prices for individual items of production (whether or not such items are included in the DETERMINATION OF AWARD) that are inconsistent or unrealistic in regard to other prices in the same offer or to GPO prices for the same operation if such action would be in the best interest of the Government.

All invoices submitted to the GPO shall be based on the most economical method of production.

Fractional parts of 100 will be prorated at the per 100 rate.

I. MASTERING OF CD-Rs AND DVD+RS: Complete product price for producing glass masters/stampers CD-Rs and DVD+Rs in accordance with these specifications. Only one mastering charge will be allowed per different CD-R/DVD+R regardless of the number of replicates run. Only one set-up charge will be allowed per each stored master reproducible (glass master or stampers); no mastering charge allowed for stored masters; regardless of the number of replicates run; no mastering charge allowed for duplication of CD-Rs and DVD+Rs.

1. Mastering of 8 cm CD-R..... per master\$ _____
2. Mastering of 12 cm CD-R..... per master\$ _____
3. Mastering of DVD-5 (DVD+R) per master\$ _____
4. Mastering of DVD-9 (DVD+R) per master\$ _____

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(Initials)

SCHEDULE OF PRICES

II. DUPLICATION/REPLICATION OF CD-Rs AND DVD+Rs: Prices must include all materials and operations necessary for duplicating/replicating CD-Rs/DVD+Rs and packaging for mailing.

1. Duplication of CD-Rs and DVD+Rs up to 1,000 copies:
 - (a) 8 cm CD-R..... per 100 discs\$ _____
 - (b) Upcharge for “Hockey Rink” shaped 8 cm CD-R..... per 100 discs\$ _____
 - (c) 12 cm CD-R..... per 100 discs\$ _____
 - (d) DVD-5 (DVD+R) per 100 discs\$ _____
 - (e) DVD-9 (DVD+R) per 100 discs\$ _____
2. Replication of CD-Rs and DVD+Rs 1,001 up to and including 10,000 copies:
 - (a) 8 cm CD-R..... per 100 discs\$ _____
 - (b) Upcharge for “Hockey Rink” shaped 8 cm CD-R..... per 100 discs\$ _____
 - (c) 12 cm CD-R..... per 100 discs\$ _____
 - (d) DVD-5 (DVD+R) per 100 discs\$ _____
 - (e) DVD-9 (DVD+R) per 100 discs\$ _____
3. Replication of CD-Rs and DVD+Rs 10,001 up to and including 25,000 copies:
 - (a) 8 cm CD-R..... per 100 discs\$ _____
 - (b) Upcharge for “Hockey Rink” shaped 8 cm CD-R..... per 100 discs\$ _____
 - (c) 12 cm CD-R..... per 100 discs\$ _____
 - (d) DVD-5 (DVD+R) per 100 discs\$ _____
 - (e) DVD-9 (DVD+R) per 100 discs\$ _____

III. PRINTING CD-Rs/DVD+Rs/LETTERS: Prices offered must include the cost of all required materials and operations (including stock/paper) necessary for the printing of the product listed in accordance with these specifications.

| | Makeready and/or Setup (1) | Running Per 100 Copies (2) |
|--|----------------------------------|----------------------------------|
| (a) Printing CD-R and DVD+R (any size, any capacity) in a single ink color..... per disc | \$ _____ | \$ _____ |
| (b) Printing CD-R and DVD+R (any size, any capacity) in four-color process (including white base coat)..... per disc | \$ _____ | \$ _____ |
| (c) Printing 8-1/2 x 11” letter face only in a single ink color per letter..... | \$ _____ | \$ _____ |
| (d) Printing 8-1/2 x 11” letter face and back in a single ink color per letter..... | \$ _____ | \$ _____ |

(Initials)

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SCHEDULE OF PRICES

IV. ADDITIONAL OPERATIONS: Price offered for the following operations must include the cost of all required materials and operations.

1. Check Discs:
 - (a) 8 cm CD-R (standard or "hockey-rink" shape) per disc.....\$ _____
 - (b) 12 cm CD-R..... per disc.....\$ _____
 - (c) DVD-5 (DVD+R) per disc.....\$ _____
 - (d) DVD-9 (DVD+R) per disc.....\$ _____
2. Individual CD-R/DVD+R Packaging:
 - (a) Clear Clam Shells (one disc) per 100 clam shells\$ _____
 - (b) Clear Clam Shells (two discs)..... per 100 clam shells\$ _____
 - (c) Paper Sleeves (one disc, with window
showing contents) per 100 paper sleeves.....\$ _____
 - (d) Vinyl Sleeves (one disc, "hockey-rink" shape) per 100 vinyl sleeves\$ _____

BIDDERS NAME AND SIGNATURE: Fill out and return all pages in "Section 4. - Schedule of Prices", initial or sign each in the space provided.

Fill out and return GPO Form 910. The schedule of prices will prevail in instances where prices are inadvertently entered on GPO Form 910.

GPO Form 910 is available on GPO web site at <http://www.gpo.gov/printforms/index.html>

Bidder _____

(City - State)

By _____
(Signature and title of person authorized to sign this bid)

(Person to be contacted)

(Telephone Number)

(Fax Number)

(Contractor Code Number)

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